

OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE)
U.S. DEPARTMENT OF ENERGY
Gulf Coast Hurricanes¹ Situation Report #6
September 29, 2005 (3:00 PM EDT)

HIGHLIGHTS

- Currently, 747,958 customers are without electric power in Texas and Louisiana. Restoration is largely complete for customers who can receive power in Arkansas and Mississippi.
- Service restoration to the seven refineries served by Entergy in the Port Arthur and Lake Charles areas remains a priority following establishment of grid service to generation sources. Limited 230KV service into the Port Arthur area is projected within a few days, but the refineries are served from the 69KV system that has substantial structural damage. In the Lake Charles area, Entergy projects limited transmission service for restoration and clean up activities in a few days and start up capacity in a week to 10 days.
- In support of restoration activities in Texas, Secretary Bodman issued an order to authorize and direct CenterPoint Energy to temporarily connect and restore power to Entergy Gulf States, Inc. Entergy, CenterPoint, TXU, and American Electric Power met yesterday to finalize a strategy for power restoration in the Entergy service area.
- The Department of Energy completed delivery of the first cargo of Strategic Petroleum Reserve crude oil sold as a result of the on-line competitive sale earlier this month. The 550,000 barrel cargo of sweet crude intended for Marathon Petroleum was delivered from the Bryan Mound, TX, site. Transfer of all of the contracted crude oil will continue in batches throughout October. In addition to the competitive sale of crude oil, the Strategic Petroleum Reserve also approved loans of crude oil of up to 13.2 million barrels to refiners whose deliveries were interrupted. Over six million barrels of oil have been delivered to date.
- The two SPR sites of West Hackberry (LA) and Big Hill (TX) remain without power due to Hurricane Rita. The sites may be out of power for 5-10 days and, therefore, are unable to drawdown crude oil.
- On late Monday, the Department of Homeland Security in coordination with Department of Transportation's (DOT) Maritime Administration, issued another Jones Act waiver. The waiver, which allows foreign ships to serve between U.S. ports in the movement of fuels, is effective until October 24. The DOT Federal Motor Carrier Safety Administration (FMCSA) also extended the driver-hours waiver for the nation until October 26.
- Last night the Environmental Protection Agency (EPA) extended waivers for the following areas: Houston/Galveston, Dallas/Forth Worth, TX, and Richmond, VA, to continue to use conventional gasoline in lieu of reformulated gasoline (RFG) until

October 20. EPA also issued an RFG waiver for the St. Louis, MO, area until October 7. The Atlanta, GA, area received an extension on its low sulfur gasoline waiver until October 25. The Texas Commission on Environmental Quality was granted a waiver to delay the use of the Texas low-emission diesel until October 21.

- DOE staff have been at the National Response Coordination Center (NRCC) at FEMA HQ, the Interagency Incident Management Team at HQ, and both the State Emergency Operation Center (EOC) and the FEMA Joint Federal Office (JFO) in Baton Rouge, LA and for several weeks. Four staff are in Austin, TX, and additional staff are on the way to Louisiana for the New Orleans and Lake Charles JFOs.
- The Texas Tiger Team, of which DOE ESF-12 staff participate, has helped to increase cooperation between Texas utilities to support Entergy power restoration. Examples of cooperation between companies and progress in restoration of services include the following:
 - Work continues on getting transmission to the Sabine and Exxon Mobil plants to provide power into the system. The targeted date for these lines being ready is Thursday 9/29.
 - Power has been restored to the Lake Livingston Pumping Station serving Houston water supply. The Coastal Water Authority (CWA) reports that they have filled the canal and have raised the reservoir level by four feet today. Trinity River Pumping Station is now operating on commercial power. Five commercial mobile generators are on site and in the process of being connected. USACE-leased generators remain pre-positioned if the commercial generator installation becomes problematic.
 - City of Dayton is in the process of being re-stored. American Electric Power (AEP)/ Southwest Electric Power Cooperative (SWEPCO) has completed restoration efforts in Texas, Louisiana and Arkansas.
 - CenterPoint Energy agreed to restore transmission and substation facilities in order to provide interconnection to the Sam Houston Electric Cooperative
 - Entergy continued to work with CenterPoint in the identification of additional areas that could be served by generation located in ERCOT. Meetings between Entergy and city and county officials to coordinate restoration efforts are occurring daily. Critical loads continue to be identified and prioritized.
 - TXU, CenterPoint, and AEP are providing additional crews and support to assist and speed restoration in the Entergy service area.
 - Several main lines, mainly in the Beaumont area, are nearing completion and should be ready Thursday to receive power. Significant progress has been made in the restoration of the Hartburg substation which is a key in getting power imported from the east into Texas.

OIL AND GAS INFORMATION

- According to MMS, 1,478,780 barrels of oil per day are currently shut-in which equates to 98.6 percent of the normal daily oil production in the Gulf. Shut-in gas production is currently 7.979 billion cubic feet per day. This shut-in gas production is equivalent to 79.79 percent of the normal daily gas production in the Gulf. Evacuations are equivalent to 59.95 percent of 819 manned platforms and 26.8747.76 percent of 134 rigs currently operating in the Gulf. For further information see MMS web site at www.mms.gov
- According to MMS's review of the evacuations, 35 platforms are destroyed while 16 platforms have extensive damage. Thirteen rigs went adrift, of which six are now grounded, and nine others have reported problems. The remainder are being re-manned, re-powered, or repaired. Approximately 2,900 platforms were in the path of Katrina and Rita. Eighteen deepwater facilities report no significant damage.
- ConocoPhillips reports that the company's largest offshore asset in the Gulf of Mexico, Magnolia, has minimal damage and production is expected to resume shortly, contingent on resumption of operations at related onshore infrastructure such as pipelines and utilities. Initial assessments at three smaller fields have identified damage, but the production impact is not expected to be significant.
- According to BP, the company expects gas production will begin at NaKika and Marlin platforms within the next few days. Three BP single-well caissons on the shelf were reported to be leaning. However, these wells were temporarily abandoned prior to the approach of the hurricanes, and hence have no production impact.

BP's Pascagoula gas plant stands ready to receive gas from offshore platforms and will ramp up production as deliveries are affected. Early aerial inspections of the BP-owned and operated Grand Chenier gas plant near Cameron, LA, indicate damage to a number of facilities at the plant. The Grand Chenier plant has an operating capacity of 650 mmcf/d and delivers into the Tennessee Gas and ANR pipelines.

- The following tables highlight the current shut downs by major energy facilities in the path of Hurricane Rita:

OIL OPERATIONS IN THE PATH OF HURRICANE RITA

9/29/05

Refineries

Company	Location	Capacity (B/D)	Status
PORT ARTHUR/ LAKE CHARLES			
Citgo	Lake Charles, LA	324,300	Shut down; minor damaged reported- no restart due to power loss

Company	Location	Capacity (B/D)	Status
ConocoPhillips	West Lake, LA	239,400	Shut down – wind damage and no power
Calcasieu	Lake Charles, LA	30,000	Shut down – assessment being made
ExxonMobil	Beaumont, TX	348,500	Shut down – assessment being made, no power
Shell (Motiva)	Port Arthur, TX	285,000	Shut down; minor damage to cooling tower and power lines
Total	Port Arthur, TX	233,500	Shut down
Valero (Premcor)	Port Arthur, TX	255,000	Shut down; "significant damage" to two cooling towers and a flare stack. 2 weeks – 1 month to repair & restart refinery.
Total		1,715,700	Shutdown – 1,715,700
HOUSTON/TEXAS CITY			
Shell Deer Park	Deer Park, TX	333,700	Restarting
Lydonell Citgo	Houston, TX	270,200	Restarting – unconfirmed shutdown
Astra Oil (Crown Central)	Pasadena, TX	100,000	Restarting
Valero	Houston, TX	83,000	Restarting
ExxonMobil	Baytown, TX	557,000	Restarting
BP	Texas City, TX	437,000	Shut down
Valero	Texas City, TX	209,950	Restarting
Marathon	Texas City, TX	72,000	Restarting
ConocoPhillips	Sweeny, TX	229,000	Restarting
Total		2,291,850	Shut down – 437,000
TOTAL OF ALL AREAS		4,713,676	Total Shutdown – 2,152,700
Four refineries (3 in LA and 1 in MS) from Hurricane Katrina remain shut down – 879,000 barrels per day		879,000	Total including Katrina – 3,031,700

Sources: Confirmed by company or on company web site. Various trade press sources.

- Several pipelines shut down their systems as a result of Hurricane Rita. Shown below is a status of the pipelines as of September 27.

Pipelines/Ports

Company	Locations	Status
CRUDE PIPELINES		
Seaway Crude Pipeline	4 lines from Texas Gulf to Cushing, OK	Operating
Capline	St. James, LA, to Patoka, IL	Operating at 80 percent of capacity
Sun Pipeline	Nederland, TX, terminal	Partial operation – Nederland terminal not operating
PRODUCT		

Company	Locations	Status
PIPELINES		
Explorer	LA to OH	Operational from Pasadena/Houston, TX, facilities to Chicago, IL. The company's origin facilities at Lake Charles, La., and at Port Arthur, TX, are not yet resumed operations.
Colonial	Houston, TX	Operating at 72 percent of capacity. No power at Lake Charles.
Longhorn	Houston west to NM/AZ Galena Park terminal (Houston)	Supply constrained.
Centennial System	Beaumont, TX, to Creal Springs, IL.	Shut down – no commercial power. Generators secured for possible restart
Magellan Pipeline	TX/OK	Operational but supply constrained.
TEPPCO	Beaumont, TX to NY	Operating at 45 percent capacity
PORTS		
Louisiana Offshore Oil Port (LOOP)	LA	Operating at 100 percent
Port of Houston	Houston, TX	Open – no restrictions
Port of Freeport	Freeport, TX	Open – no restrictions.
Port Arthur	Port Arthur, TX	Restricted to barges only
Port of Corpus Christi	Corpus Christi, TX	Open
Mississippi River		Reopened – see note below

Sources: Confirmed by company, company web site, or trade associations. Various trade press source

- The Captain of the Port of New Orleans re-opened the Inner Harbor Navigation Canal (IHNC) on the Gulf Intra Coastal Waterway (GICW) on September 26th.
- The U.S. Coast Guard reported that tug and barge traffic operating on the GICW between the Colorado Locks and the Calcasieu Locks is unrestricted. Also noted was that some portions of Sabine/Neches Waterway, the Neches river, and the Calcasieu River are restricted to shallow draft tows and light tugs only.
- Shown below is a list of natural gas pipelines impacted by Hurricane Rita. .

On-Shore and Off-Shore Pipelines with Reported Supply Issues	Status
ANR	20 percent of capacity with reduced supply. Still on Force Majeure; approximately 1.3 Bcf shut-in.
BP/Enbridge Destin pipeline	OK, Force Majeure ended Sept 27
Chevron	Western LA facilities shut-in
Columbia Gulf Transmission	Force Majeure, effective immediately for meters upstream of and including the Egan Measurement Stations due to high water at and around the Pecan Island Compressor and

On-Shore and Off-Shore Pipelines with Reported Supply Issues	Status
	Separation Station resulting from Hurricane Rita. CGT requires all operators and producers located upstream of this facility to keep physical flow and scheduled volumes at zero until further notice.
Comstock Offshore	Shut-in since Sept 20
Duke Energy Field Services including CIPCO, Seabreeze and Black Lake	CIPCO has minor damage and Black Lake remains shut-in due to lack of supplies; note that most of company's natural gas assets are in Oklahoma and West TX and are not adversely affected.
Duke Energy Gas Transmission	The Texas Eastern pipeline is in balance and holding pressure. Most compressor stations and storage facilities affected by Rita are back on-line. The Gulfstream natural gas system is operational.
Enbridge Inc.'s Offshore System, which includes Garden Banks, Manta Ray, Nautilus, Stingray, and MS Canyon	No nominations until further notice; Stingray has flooding and wind damage to onshore facilities; Sea Robin delivery point damaged.
Enterprise Product Partners GulfTerra Texas Pipeline	Shut-in after completion of Schedule Day Cycle 1, September 23, 2005 (Flow Day beginning September 24, 2005) until further notice.
Gulf South – Lake Charles	May be required to schedule only primary firm capacity and implement scheduling reductions for the September 29 Gas Day and Nomination Cycle.
Gulf South – High Island Offshore System	HIOS hereby provides notice of a Force Majeure event on its system. Due to expected severe weather conditions and mandatory operations evacuations associated with Hurricane Rita, HIOS will NOT accept any nominations until further notice.
Kinder Morgan	Force Majeure continues on Border, Texas, North Texas, and Tejas pipelines; Natural Gas Pipeline Company of America declared Force Majeure on parts of Segment 16 (Arkoma), 23 (TGT Lowry), 24 (Col Erath, Equitable, GS Erath, and LRC) , and 26 (Sabine).
Sabine	Force Majeure continues in effect at all points on the Sabine system. Power remains out in most areas of the system. Efforts are underway to remove standing water from Sabine's Henry facilities.
Southern Union's (Panhandle Energy) Trunkline and Sea Robin	Trunkline's Terrebonne System is accepting nominations for gas on starting today Sept 27. Some receipt and delivery points are not available. 28 receipt points are now cleared

On-Shore and Off-Shore Pipelines with Reported Supply Issues	Status
	<p>for flow, up from 17.</p> <p>Trunkline LNG, in Lake Charles, LA, remains shut down.</p> <p>Florida Gas Transmission fully operational.</p> <p>Sea Robin has damage at its delivery point; it is not accepting nominations.</p>
<p>Tennessee Gas</p> <p>Williams</p>	<p>Tennessee is lifting the system wide OFO Balancing Alert effective immediately. However, Tennessee reminds customers to flow scheduled volumes to avoid the necessity of issuing an Operational Flow Order in accordance with tariff provisions. Tennessee has identified several leaks and instances of flooding that will limit the operational flexibility of its system. There are also several points that remain shut in due to Force Majeure declarations on other pipelines.</p> <p>Most Williams facilities are returning to service. The Transco and Gulfstream natural gas pipeline systems have remained operational throughout hurricanes Rita and Katrina, although volumes were reduced on both systems because of producers' storm-related supply shut-ins. Transco is experiencing continued power outages and other storm related logistics in Louisiana, specifically in the Lake Charles and Eunice areas. Nominations will not be accepted on the Southeast Louisiana Lateral due to damage to Transco and 3rd party facilities as a result of Hurricane Rita. The pre-hurricane volume from these locations that will be impacted is approximately 80 MMcf/d. Black Marlin offshore pipeline is now operational and ready for gas as of Sept 26; The only report of significant damage so far is at the company's Cameron Meadows natural gas processing plant near Johnson Bayou, LA.</p>

(Sources: Company web sites, and DOT, September 28)

ELECTRICITY INFORMATION

STATE OUTAGE DATA

Utility	Customers w/o Power	% Customers w/o Power
Louisiana	368,858	17.9%
Texas	379,100	4%

- Louisiana data is reported by the Louisiana Public Service Commission as of 9/29 8:00 AM and their percentage outage numbers are used in calculating the percentage of total outage. Entergy reports that over 150,000 customers in New Orleans included above are unable to receive power. Texas data is from the TX JFO/EOC 9/29 6:30AM.

STATE REPORTS

Texas

- In Texas there are currently 379,100 customers without power. Of these, 232,856 are in the Entergy service area. In addition, NRECA reports more than 100,000 electric cooperative customers without power primarily Sam Houston in Livingston; Jasper-Newton in Kirbyville; and Deep East Texas in St. Augustine.
- Entergy has restored 70 lines and 113 substations to service since landfall, with 264 lines and 259 substations remaining out.
- Entergy expects that restoration of a transmission source into the Beaumont area is expected to be completed by late 9/29/05.
- Rolling outages to customers north of Houston due to transmission capacity constraints have continued but these outages are expected to be reduced or eliminated 9/29/05 as a combined function of restored east-west transmission ties and reduced load from predicted cooler weather.
- CenterPoint Energy reports that 670,000 of the 700,000 customers who had lost power due to Hurricane Rita were restored within 36 hours. The company expects to have all customers restored by Friday 9/28.

Louisiana

- In Louisiana, 368,858 customers remain without power, as reported by the Louisiana Public Service Commission (LAPSC) (8:00 AM, 9/29/05).

Louisiana Outage Data by Utilities with Significant Outages (8:00 PM 9/29/05)

UTILITY	OUTAGES
Entergy Gulf States	88,005
Entergy Louisiana	39,453
Entergy New Orleans	151,903
CLECO	21,417

Beauregard	35,934
SLEMCO	8,997
Jefferson Davis	10,458
SLECA	3,068
Valley	5,700
Total for state shown includes companies with low outages not include in the Table	368,858

¹ Situation Report series for Hurricanes Katrina and Rita have been combined into the Gulf Coast Hurricanes Situation Report series.